

81. The method of claim 76 wherein said thermally coupling said first surface of said diamond film to said thermal transfer surface area of the semiconductor device comprises maintaining said first surface of said diamond film and said thermal transfer surface area of said semiconductor device in compression against one another.

REMARKS

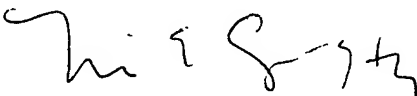
Amendments have been made to the claims. The amendments made to the claims are of a clerical, typographical or grammatical nature. It is submitted that the proposed amendments to claims do not constitute new matter.

In view of the foregoing, consideration and an early allowance of this application are earnestly solicited.

Respectfully submitted,

SIERRA PATENT GROUP, LTD.

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Nicole E. Coppes-Gathy
Reg. No: 46,640

Sierra Patent Group, Ltd.
P.O. Box 6149
Stateline, NV 89449
(775) 586-9500

VERSION WITH MARKED UP CHANGESIn the Claims:

Please amend Claims 70, 72-75, 77, 79, and 81 as follows:

70. (Amended) The method of claim 69 wherein growing said diamond film comprises growing a diamond film having an area larger than said thermal transfer surface area of the semiconductor device and further including:

dividing said diamond film into portions, at least one portion having an area matched to the thermal transfer area of the semiconductor device; and

wherein said thermally coupling [a]said first surface of said diamond film to said thermal transfer surface area of the semiconductor device comprises thermally coupling a first surface of said at least one portion of said diamond film to said thermal transfer surface area of the semiconductor device.

72. (Amended) The method of claim [53]69 wherein said thermally coupling said first surface of said diamond film to said thermal transfer surface area of the semiconductor device comprises mechanically bonding said first surface of said diamond film to said thermal transfer surface area of said semiconductor device with a bonding material having a thermal conductivity greater than 0.1 W/cm/°K.

73. (Amended) The method of claim [55]72 further including mechanically bonding a second surface of said diamond film to a heat sink with a bonding material having a thermal conductivity greater than 0.1 W/cm/°K.

74. (Amended) The method of claim [52]69 wherein said thermally coupling said first surface of said diamond film to said thermal transfer surface area of the semiconductor device comprises maintaining said first surface of said diamond film and [said to] said thermal transfer surface area of said semiconductor device in compression against one another.

75. (Amended) The method of claim [57]74 further including maintaining a heat sink in compression with a second surface of said diamond film.

77. (Amended) The method of claim [77]76 wherein said growing said diamond film comprises growing a diamond film having an area larger than said thermal transfer surface area of the semiconductor device and further including:

dividing said diamond film into portions, at least one portion having an area matched to the thermal transfer area of the semiconductor device; and

wherein said thermally coupling a first surface of said diamond film to said thermal transfer surface area of the semiconductor device comprises thermally coupling a first surface of said at least one portion of said diamond film to said thermal transfer surface area of the semiconductor device.

79. (Amended) The method of claim 76 wherein said thermally coupling said first surface of said diamond film to said thermal transfer surface area of the semiconductor device comprises mechanically bonding said first surface of said diamond film to said thermal transfer surface area of said semiconductor device with a bonding material having a thermal conductivity greater than 0.1 W/cm/°K.

81. (Amended) The method of claim 76 wherein said thermally coupling said first surface of said diamond film to said thermal transfer surface area of the semiconductor device comprises maintaining said first surface of said diamond film and [said to] said thermal transfer surface area of said semiconductor device in compression against one another.